CLAIMS:

1.   A method of activating an electronic paint (50), comprising:

scanning an electronic-paint registration code on a coded portion (20) of an electronic paint (50);

determining a position of an electronic brush (30) relative to the coded portion (20) of the electronic paint (50) based on the scanned electronic-paint registration code; and

writing a predetermined image on the electronic paint (50) based on the determined position of the electronic brush (30).

2.   The method of claim 1 wherein determining the position of the electronic brush (30) comprises determining an electronic-brush location.

3.   The method of claim 1 wherein determining the position of the electronic brush (30) comprises determining an electronic-brush rotation.

4.   The method of claim 1 wherein writing the predetermined image on the electronic paint (50) comprises reactivating the electronic paint (50) on the coded portion (20) of the electronic paint (50).

5.   The method of claim 1 further comprising:

writing a new electronic-paint registration code on an uncoded portion (22) of the electronic paint (50) while writing a portion of the predetermined image on the electronic paint (50).

6.   The method of claim 5 wherein writing the electronic-paint registration code comprises writing one of a registration mark (24), a grid (26), or an electronic-paint surface coordinate (28).

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7.   The method of claim 1 further comprising:

receiving an electronic-brush position input; and

writing a new electronic-paint registration code on an uncoded portion

(22) of the electronic paint (50) based on the electronic-brush position input.

8.   The method of claim 7 wherein the electronic-brush position input is received from one of a mechanical position detector (38) or an optical position detector (38).

9.   The method of claim 7 wherein the electronic-brush position input is received from a tilt sensor (56) coupled to the electronic brush (30).

10.   A system for activating an electronic paint (50), comprising:

an electronic brush (30) including an electronic-paint activation device

(34);

an electronic-brush scanner (36) coupled to the electronic brush (30); and

a controller (40) in electrical communication with the electronic-paint

activation device (34) and the electronic-brush scanner (36), wherein a position of the electronic brush (30) is determined based on an electronic-paint registration code on a coded portion (20) of an electronic paint (50) that is scanned by the electronic-brush scanner (36) and communicated to the controller (40), and wherein an electronic-paint write signal is sent from the controller (40) to the electronic-paint activation device (34) based on the determined electronic-brush position.

11.   The system of claim 10 wherein the electronic-paint registration code comprises one of a registration mark (24), a grid (26), or an electronic-paint surface coordinate (28).

12   The system of claim 10 wherein the controller (40) is embedded in the electronic brush (30).

13.   The system of claim 10 wherein the electronic-paint activation device (34) and the electronic-brush scanner (36) are wired or wirelessly connected to the controller (40).

14.   The system of claim 10 further comprising:

a mechanical position detector (38) coupled to the electronic brush (30) and in electrical communication with the controller (40), wherein the mechanical position detector (38) provides an electronic-brush position signal to the controller (40) based on a movement of the electronic brush (30).

15.   The system of claim 10 further comprising:

an optical position detector (38) coupled to the electronic brush (30) and in electrical communication with the controller (40), wherein the optical position detector (38) provides an electronic-brush position signal to the controller (40) based on a movement of the electronic brush (30).

16.   The system of claim 10 further comprising:

a tilt sensor (56) coupled to the electronic brush (30) and in electrical communication with the controller (40), wherein the tilt sensor (56) provides an electronic-brush tilt signal to the controller (40) based on a rotation of the electronic brush (30).

17.   A system for activating an electronic paint (50), comprising:

means for scanning an electronic-paint registration code on a coded portion (20) of an electronic paint (50);

means for determining a position of an electronic brush (30) relative to the coded portion (20) of the electronic paint (50) based on the scanned electronic-paint registration code; and

means for writing a predetermined image on the electronic paint (50) based on the determined position of the electronic brush (30).

18.   The system of claim 17 further comprising:

means for writing a new electronic-paint registration code on an uncoded portion (22) of the electronic paint (50) while writing a portion of the predetermined image on the electronic paint (50).

19.   The system of claim 17 further comprising:

means for receiving an electronic-brush position input; and

means for writing a new electronic-paint registration code on an uncoded portion (22) of the electronic paint (50) based on the electronic-brush position input.

20.   An electronic brush (30) for activating an electronic paint (50), comprising:

an electronic-brush housing (32);

an electronic-paint activation device (34) coupled to the electronic-brush housing (32);

an electronic-brush scanner (36) coupled to the electronic-brush housing (32); and

a controller (40) in electrical communication with the electronic-paint activation device (34) and the electronic-brush scanner (36), wherein a position of the electronic brush (30) is determined based on position signals from the electronic-brush scanner (36), and wherein an electronic-paint write signal is sent from the controller (40) to the electronic-paint activation device (34) based on the determined electronic-brush position.

21.   The electronic brush (30) of claim 20 wherein the electronic-brush scanner (36) provides the position signals when the electronic brush (30) is stroked across an electronic paint (50) having a coded portion (20).

22.   The electronic brush (30) of claim 20 wherein the controller (40) is embedded in the electronic brush (30).

23.   The electronic brush (30) of claim 20 wherein the controller (40) is wired or wirelessly connected to the electronic-paint activation device (34) and the electronic-brush scanner (36).

24.   The electronic brush (30) of claim 20 further comprising:

a position detector (38) coupled to the electronic brush (30) and in electrical communication with the controller (40), wherein the position detector (38) provides an electronic-brush position signal to the controller (40) based on a movement of the electronic brush (30).

25.   The electronic brush (30) of claim 20 further comprising:

a tilt sensor (56) coupled to the electronic brush (30) and in electrical communication with the controller (40), wherein the tilt sensor (56) provides an electronic-brush tilt signal to the controller (40) based on a rotation of the electronic brush (30).